

COMPRESSOR DEFINITION

| | |
|---------------------------|------------------------|
| Designation | NE K2150GK |
| Nominal Voltage/Frequency | 220-240 V 50 Hz |
| Engineering Number | 959AA51 |

A - APPLICATION / LIMIT WORKING CONDITIONS

| | | | |
|------------------------------------|-----------------------------------|-----------------------------------|-----------|
| 1 Type | Hermetic reciprocating compressor | | |
| 2 Refrigerant | R-404A | | |
| 3 Nominal voltage and frequency | 220-240 / 50 | [V / Hz] | |
| 4 Application type | Low Back Pressure R404A | | |
| 4.1 Evaporating temperature range | -40°C to -10°C | (-40°F to 14°F) | |
| 5 Motor type | CSIR | | |
| 6 Starting torque | HST - High starting torque | | |
| 7 Expansion device | Capillary tube or Expansion valve | | |
| 8 Compressor cooling | | Operating voltage range | |
| | | 50 Hz | 60 Hz |
| 8.1 LBP (32°C Ambient temperature) | - | - | - |
| 8.2 LBP (43°C Ambient temperature) | - | - | - |
| 8.3 HBP (32°C Ambient temperature) | - | - | - |
| 8.4 HBP (43°C Ambient temperature) | - | - | - |
| 9 Maximum condensing temperature | | | |
| 9.1 Operating (gauge) | 25.2 | [kgf/cm ²] (358 psig) | / °C - °F |
| 9.2 Peak (gauge) | 28.3 | [kgf/cm ²] (402 psig) | / °C - °F |
| 10 Maximum winding temperature | 130 | [°C] | |

B - MECHANICAL DATA

| | | |
|-------------------------------|---------------|--|
| 1 Commercial designation | 1/2+ | [hp] |
| 2 Displacement | 12.11 | [cm ³] (0.739 cu.in) |
| 2.1 Bore [mm] | 27.775 | |
| 2.2 Stroke [mm] | 20.000 | |
| 3 Lubricant charge | 350 | [ml] (11.84 fl.oz.) |
| 3.1 Lubricants approved | | |
| 3.2 Lubricants type/viscosity | ESTER / ISO22 | |
| 4 Weight (with oil charge) | 11.55 | [kg] (25.46 lb.) |
| 5 Nitrogen charge | 0.2 to 0.3 | [kgf/cm ²] (2.84 to 4.27 psig) |

C - ELETRICAL DATA

| | | |
|--|------------------------------------|------------------------------------|
| 1 Nominal Voltage/Frequency/Number of Phases | 220-240 V 50 Hz 1 ~ (Single phase) | |
| 2 Starting device type | Current Relay | |
| 2.1 Starting device | MTRP-0012 | |
| 3 Start capacitor | 72-88(330) | [μF(VAC minimum)] |
| 4 Run capacitor | - | [μF(VAC minimum)] |
| 5 Motor protection | T0634/G6 | |
| 6 Start winding resistance | 27.95 | [Ω at 25°C (77°F)] +/- 8% |
| 7 Run winding resistance | 5.11 | [Ω at 25°C (77°F)] +/- 8% |
| 8 LRA - Locked rotor amperage (50 Hz) | - | [A] - Measured according to UL 984 |
| 9 FLA - Full load amperage L/MBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 10 FLA - Full Load Amperage HBP (50 Hz) | - | [A] - Measured according to UL 984 |
| 11 Approval boards certification | CCC - IMQ | |

D - PERFORMANCE - CHECK POINT DATA

| | | | | | | | | |
|-------------------------------|----------|-----|--------------------------------|----------------------------------|--|---------------------------|--|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAELBP32 Fan | | Evaporating temperature (Condensing temperature | | -23.3°C (-9.94°F) 54.4°C (129.92°F) | |
| Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| 2063 | 520 | 605 | 486 | 3.07 | 13.99 | 4.24 | 1.07 | 1.24 |

E - PERFORMANCE - CURVES

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|---------------------------------------|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Fan | | (Condensing temperature 35°C (+95°F)) | | | | | |
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -40 | (-40) | 1066 | 269 | 312 | 303 | 2.73 | 7.17 | 3.51 | 0.88 | 1.03 |
| -35 | (-31) | 1354 | 341 | 397 | 347 | 2.85 | 9.13 | 3.91 | 0.98 | 1.14 |
| -30 | (-22) | 1733 | 437 | 508 | 392 | 2.97 | 11.72 | 4.42 | 1.12 | 1.30 |
| -25 | (-13) | 2203 | 555 | 646 | 438 | 3.10 | 14.97 | 5.03 | 1.27 | 1.48 |
| -20 | (- 4) | 2765 | 697 | 810 | 484 | 3.25 | 18.88 | 5.71 | 1.44 | 1.67 |
| -15 | (+ 5) | 3418 | 861 | 1002 | 532 | 3.40 | 23.48 | 6.42 | 1.62 | 1.88 |
| -10 | (+14) | 4163 | 1049 | 1220 | 582 | 3.57 | 28.80 | 7.15 | 1.80 | 2.09 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Fan | | (Condensing temperature 45°C (+113°F)) | | | | | |
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -40 | (-40) | 968 | 244 | 284 | 311 | 2.77 | 6.49 | 3.12 | 0.79 | 0.91 |
| -35 | (-31) | 1245 | 314 | 365 | 359 | 2.88 | 8.38 | 3.47 | 0.87 | 1.02 |
| -30 | (-22) | 1611 | 406 | 472 | 410 | 3.01 | 10.88 | 3.92 | 0.99 | 1.15 |
| -25 | (-13) | 2065 | 520 | 605 | 464 | 3.17 | 14.00 | 4.44 | 1.12 | 1.30 |
| -20 | (- 4) | 2607 | 657 | 764 | 521 | 3.34 | 17.77 | 5.00 | 1.26 | 1.47 |
| -15 | (+ 5) | 3239 | 816 | 949 | 580 | 3.55 | 22.21 | 5.59 | 1.41 | 1.64 |
| -10 | (+14) | 3959 | 998 | 1160 | 643 | 3.78 | 27.33 | 6.17 | 1.55 | 1.81 |

| | | | | | | | | | | |
|-------------------------------|-------|----------------------------|-----------------|------|--|----------------------------------|----------------------------|---------------------------|-----------|-------|
| TEST CONDITIONS: @220V50Hz | | | ASHRAE32 Fan | | (Condensing temperature 55°C (+131°F)) | | | | | |
| Evaporating temperature | | Cooling capacity +/- 5% | | | Power consumption +/- 5% | Current consumption +/- 5% | Gas flow rate +/- 5% | EFFICIENCY RATE +/- 7% | | |
| °C | (°F) | [Btu/h] | [kcal/h] | [W] | [W] | [A] | [kg/h] | [Btu/Wh] | [kcal/Wh] | [W/W] |
| -40 | (-40) | 886 | 223 | 260 | 314 | 2.82 | 5.93 | 2.82 | 0.71 | 0.83 |
| -35 | (-31) | 1144 | 288 | 335 | 367 | 2.92 | 7.69 | 3.12 | 0.79 | 0.92 |
| -30 | (-22) | 1488 | 375 | 436 | 424 | 3.06 | 10.03 | 3.51 | 0.88 | 1.03 |
| -25 | (-13) | 1917 | 483 | 562 | 486 | 3.23 | 12.97 | 3.94 | 0.99 | 1.15 |
| -20 | (- 4) | 2433 | 613 | 713 | 553 | 3.44 | 16.54 | 4.40 | 1.11 | 1.29 |
| -15 | (+ 5) | 3034 | 765 | 889 | 624 | 3.69 | 20.76 | 4.87 | 1.23 | 1.43 |
| -10 | (+14) | 3721 | 938 | 1090 | 700 | 3.98 | 25.64 | 5.30 | 1.34 | 1.55 |

F - EXTERNAL CHARACTERISTICS

| | | | |
|-------------------------|-------------------|------|--------------------------|
| 1 Base plate | European Standard | | |
| 2 Tray holder | No | | |
| 3 Connectors | | | |
| 3.1 SUCTION | 8.1 +0.10/+0.00 | [mm] | (0.319" +0.004"/+0.000") |
| 3.1.1 Material | Copper | | |
| 3.1.2 Shape | Slanted 42° | | |
| 3.2 DISCHARGE | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.2.1 Material | Copper | | |
| 3.2.2 Shape | Straight | | |
| 3.3 PROCESS | 6.1 +0.10/+0.00 | [mm] | (0.240" +0.004"/+0.000") |
| 3.3.1 Material | Copper | | |
| 3.3.2 Shape | Slanted 42° | | |
| 3.4 Oil cooler (Copper) | No | [mm] | |
| 3.5 Connector sealing | Rubber Plugs | | |